REMARKS

Status of the Claims

Claims 10 and 12-18 are pending, with claim 10 being the only pending independent claim. Claims 1-9 and 19-23 have been cancelled as being directed to non-elected subject matter pursuant to the restriction requirement without prejudice to or disclaimer of the subject matter contained therein. Applicants expressly reserve the right to file one or more divisional applications directed to the non-elected subject matter. Claim 10 has been amended to even more clearly recite and distinctly claim the present invention. Support for the claim amendments may be found throughout the specification, including, for example, in the original claims. Therefore, no new matter has been added.

Applicants respectfully request the Examiner to reconsider and withdraw the outstanding rejections in view of the foregoing amendments and the following remarks.

Claim Rejections Under 35 U.S.C. § 102

Claims 10 and 12-18 are rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Japanese Publication No. 05-171103 ("'103") or Japanese Publication No. 03-179067 ("'067"). Applicants respectfully disagree with these rejections; therefore, the rejections are respectfully traversed.

According to M.P.E.P. § 2131, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

'103 discloses a resin composition having an acrylic copolymer with a COOH- unit, an acrylic copolymer containing an epoxy group, and an amino resin (Abstract). '103 further discloses that the resin is a paint resin and forms a paint film (Page 1, paragraphs [0001] and [0004]). '103 discloses that above a certain number average molecular weight the viscosity at the time of paint film formation is high, fluidity falls, and the smooth painted surface is not obtained (Page 5, lines 30-36). Moreover, it is disclosed that the paint is usually in the form of a solution (Page 6, lines 4-5). Therefore, as 103's paint has "fluidity" and is in the form of a "solution", the paint composition of '103 is a conventional solvent based paint composition. At page 6, lines 4-14, it is disclosed that the '103 paint composition requires a solvent.

In contrast, amended claim 10 recites, a glycidyl (meth)acrylate based resin for a ***powder coating composition*** comprising (a) a glycidyl (meth)acrylate monomer of formula I,

(b) a caprolactone (meth)acrylate monomer of formula II, and (c) an ethylenically unsaturated monomer selected from the group consisting of methyl acrylate, ethyl acrylate, n-butyl acrylate, isobutyl acrylate, 2-ethylhexyl acrylate, cyclohexyl acrylate, isobornylacrylate, 2-ethylhexyl (meth)acrylate, lauryl (meth)acrylate, tridecyl (meth)acrylate, stearyl (meth)acrylate, cyclohexyl (meth)acrylate, isobornyl (meth)acrylate, α-methyl styrene, α-ethylstyrene, divinyl benzene, vinyl chloride, vinylidene chloride, vinyl acetate, vinyl propionate, and mixtures thereof, and wherein ***the powder coating composition is a powder***.

The ***powder coating composition*** of the present claims is significantly different from the '103 paint composition which requires a solvent, because the presently claimed ***powder coating composition*** does not contain a solvent and is a ***powder***. The presently claimed ***powder coating composition*** overcomes the known disadvantages of a solvent-based paint composition, as disclosed by '103, including being environmentally friendly as disclosed at page 1, paragraph [0002] of the specification.

It should be noted that the claim limitation "***the powder coating composition is a powder***", as recited in amended claim 10, is an affirmative limitation which requires that glycidyl (meth)acrylate based resin composition to be a powder coating composition.

Further, the presently claimed glycidyl (meth)acrylate based resin includes monomers (a), (b), and (c), wherein each of the three monomers is specifically defined resulting in a limited number of variations in the resin's composition. In contrast, '103's epoxy group containing acrylic copolymer includes one or more monomers such as a glycidyl (meth)acrylate, hydroxyl group containing acrylic monomers, and partial saturation monomers, wherein the list of each type of the disclosed monomers is extensive resulting in almost infinite combinations of monomers therein providing a copolymer composition with wide ranging properties. Further, this copolymer of '103 having wide ranging properties depending on the various combinations of monomers used will have "fluidity" and will be in the form of a "solution" as disclosed at page 5, lines 30-36 and page 6, lines 4-5 of '103. Therefore, the paint composition of '103 will not be a ***powder*** as presently claimed.

Therefore, in view of at least the foregoing, Applicants respectfully submit that claim 10 is not anticipated by '103. Moreover, as claims 12-18 depend either directly or indirectly from claim 10, claims 12-18 are not anticipated by '103 for at least the same reasons.

'067 discloses a paint composition having a resin made from glycidylmethacrylate in 30.0 parts by weight, styrene in 30.0 parts by weight, n-butylacrylate in 10.0 parts by weight, dodecylmethacrylate in 10.0 parts by weight, and Placcell FM-2® series: 2-hydroxyethyl methacrylate/caprolactone (1:2 mol) adduct in 20.0 parts by weight (USE/ADVANTAGE as provided by DERWENT). The paint composition of '067 includes a "resinous solution" as disclosed in the USE/ADVANTAGE section of the DERWENT abstract. The "resinous solution" of '067 implies the presence of solvent(s) in the paint composition.

In contrast, amended claim 10 recites a glycidyl (meth)acrylate based resin for a ***powder coating composition*** comprising (a) a glycidyl (meth)acrylate monomer of formula I, (b) a caprolactone (meth)acrylate monomer of formula II, and (c) an ethylenically unsaturated monomer selected from the group consisting of methyl acrylate, ethyl acrylate, n-butyl acrylate, isobutyl acrylate, 2-ethylhexyl acrylate, cyclohexyl acrylate, isobornylacrylate, 2-ethylhexyl (meth)acrylate, lauryl (meth)acrylate, tridecyl (meth)acrylate, stearyl (meth)acrylate, cyclohexyl (meth)acrylate, isobornyl (meth)acrylate, α-methyl styrene, α-ethylstyrene, divinyl benzene, vinyl chloride, vinylidene chloride, vinyl acetate, vinyl propionate, and mixtures thereof, and wherein ***the powder coating composition is a powder***.

The ***powder coating composition*** of the present claims is significantly different from the '067 paint composition, which includes a "resinous solution" because the presently claimed ***powder coating composition*** does not contain a solvent and is a ***powder***. The presently claimed ***powder coating composition*** overcomes the known disadvantages of a solvent-based paint composition, as disclosed by '067, including being environmentally friendly as disclosed at page 1, paragraph [0002] of the specification.

It should be noted that the claim limitation "***the powder coating composition is a powder***", as recited in amended claim 10, is an affirmative limitation which requires that glycidyl (meth)acrylate based resin composition to be a powder coating composition.

Further, the presently claimed glycidyl (meth)acrylate based resin includes monomers (a), (b), and (c), wherein each of the three monomers is specifically defined resulting in a limited number of variations in the resin's composition. In contrast, as disclosed in '067 the resin is in the form of a "resinous solution" which requires a solvent component in the resulting paint composition. Therefore, the paint composition of '067 is not a ***powder*** coating composition as presently claimed.

Therefore, in view of at least the foregoing, Applicants respectfully submit that claim 10 is not anticipated by '067. Moreover, as claims 12-18 depend either directly or indirectly from claim 10, claims 12-18 are not anticipated by '067 for at least the same reasons.

In view of at least the foregoing, Applicants respectfully submit that the pending claims 10 and 12-18 are not anticipated by '103 or '067.

Claims 10, 12-14, 17, and 18 are rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent Number 6,767,987 ("Okazaki"). Applicants respectfully disagree with these rejections; therefore, the rejections are respectfully traversed.

According to M.P.E.P. § 2131, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Okazaki discloses curable resin composition comprising: (i) an acrylic polyol resin (A) comprising a hydroxyalkyl(meth)acrylate composition having polymerized lactone monomer being polymerized by ring-opening with respect to hydroxyalkyl(meth)acrylate, and (ii) a melamine resin (B) (See claim 1). Okazaki further discloses acrylic polyol resin (VIIA4) having 25.1 parts of sytrene, 5.3 parts of MMA, 32.3 parts of butyl acrylate, *4.9 parts of glycidyl methacrylate*, 31.6 parts of FM1.0, *18 parts of xylene*, 1.7 part of AIBN (Col. 138, lines 1-6). It should be noted that the amount of glycidyl methacrylate in the VIIA4 resin composition of Okazaki is about 4 wt%. Further, Okazaki's VIIA4 resin composition includes xylene in an amount of about 15 wt%, which would not yield a *powder coating composition.*

In contrast, amended claim 10 recites a glycidyl (meth)acrylate based resin for a ***powder coating composition*** comprising (a) a glycidyl (meth)acrylate monomer of formula I, (b) a caprolactone (meth)acrylate monomer of formula II, and (c) an ethylenically unsaturated monomer selected from the group consisting of methyl acrylate, ethyl acrylate, n-butyl acrylate, isobutyl acrylate, 2-ethylhexyl acrylate, cyclohexyl acrylate, isobornylacrylate, 2-ethylhexyl (meth)acrylate, lauryl (meth)acrylate, tridecyl (meth)acrylate, stearyl (meth)acrylate, cyclohexyl (meth)acrylate, isobornyl (meth)acrylate, α-methyl styrene, α-ethylstyrene, divinyl benzene, vinyl chloride, vinylidene chloride, vinyl acetate, vinyl propionate, and mixtures thereof, and wherein ***the powder coating composition is a powder***.

The ***powder coating composition*** of the present claims is significantly different from the Okazaki composition which requires a solvent, *i.e.*, xylene in the VIIA4 resin, because the presently claimed ***powder coating composition*** does not contain a solvent and is a ***powder***. The presently claimed ***powder coating composition*** overcomes the known disadvantages of a solvent-based paint composition, as disclosed by Okazaki, including being environmentally friendly as disclosed at page 1, paragraph [0002] of the specification.

It should be noted that the claim limitation "***the powder coating composition is a powder***", as recited in amended claim 10, is an affirmative limitation which requires that glycidyl (meth)acrylate based resin composition to be a powder coating composition.

Moreover, in contrast to Okazaki's about 4 wt% glycidyl methacrylate, claim 17 recites an amount of about 10 wt% to about 65 wt% of glycidyl (meth)acrylate monomer.

Therefore, in view of at least the foregoing, Applicants respectfully submit that claim 10 is not anticipated by Okazaki. Moreover, as claims 12-14, 17, and 18 depend either directly or indirectly from claim 10, claims 12-14, 17, and 18 are not anticipated by Okazaki for at least the same reasons.

In view of at least the foregoing, Applicants respectfully submit that the pending claims 10 and 12-14, 17, and 18 are not anticipated by Okazaki.

Claim Rejections Under 35 U.S.C. § 103

Claims 10 and 12-18 are rejected under 35 U.S.C. § 103(a) as allegedly obvious over U.S. Patent Number 6,313,221 ("Yabuta") in view of '103 and '067. Applicants respectfully disagree with the rejection of claims 10 and 12-18; therefore, the rejection is respectfully traversed.

M.P.E.P. § 2142 provides that "to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." Furthermore, if an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Yabuta discloses a thermosetting powder coating composition which is prepared by a wet process from a formulation containing an epoxy-containing acrylic resin (a), a polycarboxylic acid compound curing agent (b) and fine crosslinked resin particles (c) (Col. 2, lines 54-58). Yabuta further discloses the thermosetting powder coating composition provides coating films having improved blocking resistance and smoothness if the epoxy-containing acrylic resin (a) comprises two different types of epoxy-containing acrylic resins A and B which preferably satisfy certain solubility parameter and glass transition temperature conditions (Col. 5, lines 37-55).

The present claims, in contrast, recite ***a glycidyl (meth)acrylate based resin for a powder coating composition*** comprising (a) a glycidyl (meth)acrylate monomer of formula I, (b) a caprolactone (meth)acrylate monomer of formula II, and (c) an ethylenically unsaturated monomer selected from the group consisting of methyl acrylate, ethyl acrylate, n-butyl acrylate, isobutyl acrylate, 2-ethylhexyl acrylate, cyclohexyl acrylate, isobornylacrylate, 2-ethylhexyl (meth)acrylate, lauryl (meth)acrylate, tridecyl (meth)acrylate, stearyl (meth)acrylate, cyclohexyl (meth)acrylate, isobornyl (meth)acrylate, α-methyl styrene, α-ethylstyrene, divinyl benzene, vinyl chloride, vinylidene chloride, vinyl acetate, vinyl propionate, and mixtures thereof, and wherein ***the powder coating composition is a powder***.

Therefore, the presently claimed ***glycidyl (meth)acrylate based resin*** includes monomers (a), (b), and (c), wherein each of the three monomers is specifically defined resulting in a limited number of variations in the resin's composition. In contrast, the epoxy-containing acrylic resin (a) of Yabuta includes an epoxy-containing monomer and an optional monomer which is selected from a long list of various monomers ranging from polycaprolactone to styrene, wherein the epoxy-containing monomers and optional monomers may be used alone or in any combination thereof. However, no combination of monomers in Yabuta anticipates the ***glycidyl (meth)acrylate based resin*** comprising monomers (a), (b), and (c), as presently claimed. More particularly, the presently claimed ethylenically unsaturated monomers are not disclosed by Yabuta in the list provided at Col. 5, lines 6-22.

Further, in contrast to Yabuta the present claims recite ***a glycidyl (meth)acrylate based resin*** in direct contrast with Yabuta's epoxy-containing acrylic resin (a) comprising two different types of epoxy-containing acrylic resins A and B in order to obtain a thermosetting powder coating composition providing coating films having improved blocking resistance and smoothness. The present claims do not require a mixture of two different types of

glycidyl (meth)acrylate resins. Furthermore, as disclosed in the Examples beginning on page 16 of the specification a glycidyl (meth)acrylate resin results in powder coating compositions having desirable characteristics.

As described above, '103 discloses a resin composition having an acrylic copolymer with a COOH- unit, an acrylic copolymer containing an epoxy group, and an amino resin (Abstract) and '067 discloses a paint composition having a resin made from glycidylmethacrylate in 30.0 parts by weight, styrene in 30.0 parts by weight, n-butylacrylate in 10.0 parts by weight, dodecylmethacrylate in 10.0 parts by weight, and Placcell FM-2® series: 2-hydroxyethyl methacrylate/caprolactone (1:2 mol) adduct in 20.0 parts by weight (USE/ADVANTAGE as provided by DERWENT).

Even if there were some suggestion or motivation to combine Yabuta, '103, and '067 and a reasonable expectation of success, Yabuta,'103, and '067, even when combined, do not disclose or suggest all the claim limitations. It is respectively submitted that although Yabuta, '103, and '067 mention coating compositions, even if combined, Yabuta, '103, and '067 at least do not disclose or suggest ***a glycidyl (meth)acrylate based resin for a powder coating composition*** comprising (a) a glycidyl (meth)acrylate monomer of formula I, (b) a caprolactone (meth)acrylate monomer of formula II, and (c) an ethylenically unsaturated monomer selected from the group consisting of methyl acrylate, ethyl acrylate, n-butyl acrylate, isobutyl acrylate, 2-ethylhexyl acrylate, cyclohexyl acrylate, isobornylacrylate, 2-ethylhexyl (meth)acrylate, lauryl (meth)acrylate, tridecyl (meth)acrylate, stearyl (meth)acrylate, cyclohexyl (meth)acrylate, isobornyl (meth)acrylate, α-methyl styrene, α-ethylstyrene, divinyl benzene, vinyl chloride, vinylidene chloride, vinyl acetate, vinyl propionate, and mixtures thereof, and wherein ***the powder coating composition is a powder***.

Accordingly, for at least the above described reasons, Applicants respectfully request that the obviousness rejection of claims 10 and 12-18 over Yabuta in view of '103 and '067 be withdrawn.

Claims 15 and 16 are rejected under 35 U.S.C. § 103(a) as allegedly obvious over Okazaki. Applicants respectfully disagree with the rejection of claims 15 and 16; therefore, the rejection is respectfully traversed.

M.P.E.P. § 2142 provides that "to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the

art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." Furthermore, if an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

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In contrast, amended claim 10 recites a glycidyl (meth)acrylate based resin for a ***powder coating composition*** comprising (a) a glycidyl (meth)acrylate monomer of formula I, (b) a caprolactone (meth)acrylate monomer of formula II, and (c) an ethylenically unsaturated monomer selected from the group consisting of methyl acrylate, ethyl acrylate, n-butyl acrylate, isobutyl acrylate, 2-ethylhexyl acrylate, cyclohexyl acrylate, isobornylacrylate, 2-ethylhexyl (meth)acrylate, lauryl (meth)acrylate, tridecyl (meth)acrylate, stearyl (meth)acrylate, cyclohexyl (meth)acrylate, isobornyl (meth)acrylate, α-methyl styrene, α-ethylstyrene, divinyl benzene, vinyl chloride, vinylidene chloride, vinyl acetate, vinyl propionate, and mixtures thereof, and wherein ***the powder coating composition is a powder***.

The ***powder coating composition*** of the present claims is significantly different from the Okazaki composition which requires a solvent, *i.e.*, xylene in the VIIA4 resin, because the presently claimed ***powder coating composition*** does not contain a solvent and is a ***powder***. The presently claimed ***powder coating composition*** overcomes the known disadvantages of a solvent-based paint composition, as disclosed by Okazaki, including being environmentally friendly as disclosed at page 1, paragraph [0002] of the specification.

It should be noted that the claim limitation "***the powder coating composition is a powder***", as recited in amended claim 10, is an affirmative limitation which requires that glycidyl (meth)acrylate based resin composition to be a powder coating composition.

Therefore, in view of at least the foregoing, Applicants respectfully submit that claims 15 and 16 are not rendered obvious over Okazaki. Accordingly, for at least the above described reasons, Applicants respectfully request that the obviousness rejection of claims 15 and 16 over Okazaki be withdrawn.

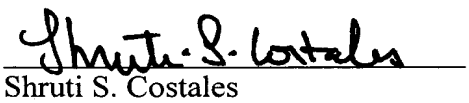
Conclusion

Without conceding the propriety of the rejections, the claims have been amended, as provided above, to even more clearly recite and distinctly claim particularly preferred embodiments of Applicants' invention and to pursue an early allowance. For the reasons noted above, the art of record does not disclose or suggest the inventive concept of the present invention as defined by the claims.

In view of the foregoing amendment and remarks, reconsideration of the claims and allowance of the subject application is earnestly solicited. In the event that there are any questions relating to this application, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that prosecution of this application may be expedited.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

By: 
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